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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/718,148      | 11/21/2000  | William P. Acker     | 107044-0002         | 1089             |

24267 7590 07/05/2002

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| EXAMINER |
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MAPLES, JOHN S

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1745

DATE MAILED: 07/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

MF-3

**Office Action Summary**

Application No.

09/718,148

Applicant(s)

ACKER ET AL.

Examiner

John S. Maples

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 ~~is/are~~ are pending in the application.
- 4a) Of the above claim(s) 1-9 and 19-27 ~~is/are~~ are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 and 28-36 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-9 and 19-27, drawn to a fuel cell system, classified in class 429, subclass 23.
  - II. Claims 10-18 and 28-36, drawn to a method of regulating a methanol concentration in a fuel cell, classified in class 429, subclass 13.
2. The inventions are distinct, each from the other because: the method of Group II does not require the source of air or oxygen to be coupled to the cathode as the Group I fuel cell system requires. Also, the Group I system sets forth a methanol concentration regulator coupled to a methanol source, a detector and to an anode; which feature is not part of the Group II method.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mike Attaya on July 1, 2002 a provisional election was made without traverse to prosecute the invention of Group II, claims 10-18 and 28-36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9 and 19-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Figures 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the limitations of both claims 10 and 28 where the concentration regulator increases the amount of methanol to the anode when the power level increases and where the regulator decreases the amount of methanol to the anode when the power level decreases.

8. Claims 10-18 and 28-36 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The specification is not clear regarding the limitations of both claims 10 and 28 where the concentration regulator increases the amount of methanol to the anode when the power level increases and where the regulator decreases the amount of methanol to the anode when the power level decreases. It would appear that when the power level of the fuel cell increases, then the regulator would want to decrease the amount of the methanol to the fuel cell so that the fuel cell does not produce too much power. And in the other instance, where the fuel cell is

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producing less power, one would desire the fuel cell to produce more power and so the regulator would supply more methanol so that the fuel cell can produce more power. Clarification is required.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

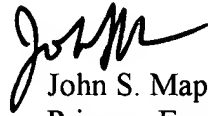
Hauer shows a fuel cell with a charge condition detector and Kumagai et al. disclose a detector along with a fuel regulator for a methanol fuel cell. In view of the above 35 USC 112, first paragraph rejection, it is unclear exactly what constitutes applicant's invention and so relevant prior art could not be applied there against.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 703-308-1795. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 703-308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John S. Maples  
Primary Examiner  
Art Unit 1745

JSM

July 1, 2002